



MPA-400

Wireless Megaphone P.A.



Owner's Manual

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INTRODUCTION

Thank you for purchasing a Nady MPA-400 Wireless Portable Megaphone P.A. —and congratulations on your choice. The megaphone horn-type loud speaker is suitable for use in area with high ambient noise levels. Ideal for many applications, including use in outdoor gatherings, classrooms, conference/meeting rooms, churches, health clubs and small auditoriums. It is powerful, yet lightweight and easily portable with its attached shoulder strap. We are sure you will find this versatile system a powerful and useful tool for your presentations.

USING THIS MANUAL

This booklet provides information regarding the use of the MPA-400 wireless megaphone system. It includes detailed instructions, description of features and step-by-step guides to operating. This should answer any questions about the operation and servicing of this system.

SYSTEM FEATURES

MPA-400 WIRELESS MEGAPHONE P.A.

- Full-range megaphone speaker system with built-in Amplifier, Mixer, and High Band VHF Wireless Receiver
- Powerful 40W audio power output
- Wireless system features noise reduction companding circuitry for quietest operation with a wide dynamic range
- WHT handheld Mic transmitter included. (1x MPA-400 megaphone receiver and 1x WHT transmitter on the same frequency comprises a system)
- 1/4" unbalanced input jack with volume and tone control for both wired and wireless microphone
- Power/Charge/Low Battery LED Indicators
- Convenient built-in rechargeable battery
- Powered externally with 12V/3A DC power supply
- Stand mountable with optional MPA-4S stand
- Compact & lightweight- 7 x 9 x 11.5in (178 x 229 x 292mm) & 12.4 lbs (5.6kg): easily transportable with attached shoulder strap

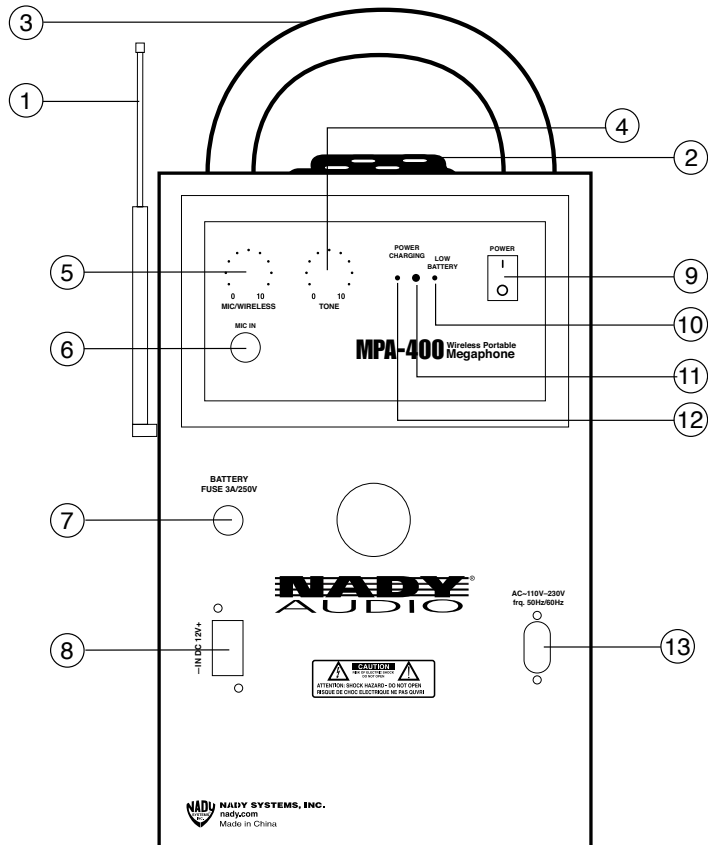
WHT TRANSMITTER

The Nady WHT is a sleek tapered handheld microphone with these special features:

- Features the Nady DM -10D unidirectional neodymium dynamic cartridge for optimum true sound, maximum feedback rejection and minimal handling noise
- OFF/STANDBY/ON switch allows convenient audio muting with the transmitter "ON"
- Low battery LED indicator flashes once for unit "ON"; lights steady for low battery alert
- Operates up to 20 hours on a single 9 volt battery

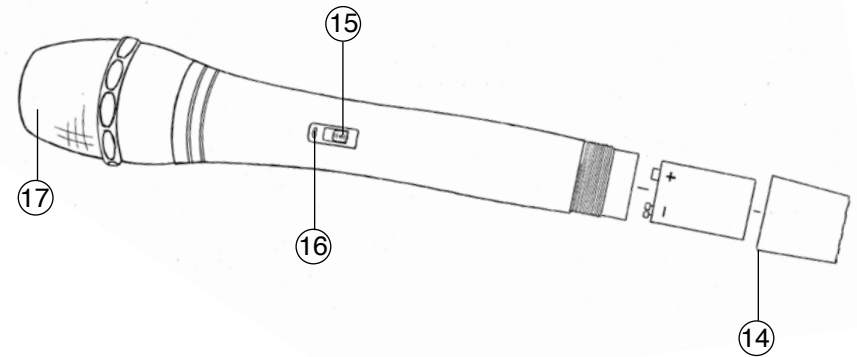
CONTROLS AND CONNECTIONS

1. **Receiver Antenna** Extend fully for optimum range
2. **Handle/Shoulder Strap** For transporting the MPA-400
3. **Handle**
4. **Tone Control** Counter-clockwise increases bass, clockwise increases treble
5. **Wireless/Wired Mic Volume Control**
6. **Wired Mic Input** 1/4" TS (mono) jack
7. **3A Fuse** Protects the MPA-400 from overload
8. **External 12VDC Input Terminal**
9. **Power ON/OFF Switch**
10. **Low Battery ON LED (Red)**
11. **Battery Charging LED (Red)**
12. **Power ON LED (Green)**
13. **AC Input jack** for supplied AC cord



CONTROLS AND CONNECTIONS

WHT Handheld Microphone Transmitter



14. **Battery Compartment** (single 9v alkaline)
15. **Power ON/MUTE/OFF Switch**
16. **Power/Low Battery LED** Flashes once for unit on, lights steady for low-battery alert
17. **Mic Input** Nady DM-10D element

SYSTEM OPERATION AND SETUP

Powering the MPA-400

Turn on the unit using the **Power ON Switch (9)**. The **Power ON LED (12)** indicating the MPA-400 is receiving power. The MPA-400 is powered internally by the 12V/3.3A rechargeable battery. A fully charged battery can power the unit for up to 2 hours of normal operation. The unit will start charging the internal battery automatically when on; or when the internal rechargeable battery is low. When charging, the **Charging ON LED (11)** will remain lit.

(Note: To avoid damaging your unit, use only the provided AC cord connected to the power input socket.)

When the **Low Battery ON LED (10)** is on, this means the MPA-400 needs to be charged as soon as possible. When charging, the LED remains red. When charging is complete, the LED turns Green. For optimum use, the MPA-400 should be fully charged each time. Disconnect the AC cord when charging is complete.

(Note: Do not turn off the MPA-400 Power ON Switch until the Battery charging LED ON indicator lights green, the battery is fully charged and ready to power the MPA-400 alone. Shut off the Power ON Switch and disconnect the AC cord. If the unit is not to be used for a long period of time, make sure the battery is fully charged before put it away for next use.)

(Note: When the Charge ON LED is not turns Green or the operating hours is noted less, the internal battery might need replacing.)

External Power for Charger

Plug the external provided power cord into **AC Input Socket (13)**.

Then plug the AC plug into a standard 115VAC or 240VAC outlet (The AC adapter will detect the Line Voltage Automatically).

External 12V DC Supply

The MPA-400 can be powered externally supply via the **External DC +12V DC Input Terminal (8)**. Connect the external power supply wires to the two input terminals, observing the correct polarity as marked. The power source should provide 12VDC at current 3A or higher. The **3A Fuse (7)** is used to protect power the unit overloading. Should the fuse burn, replace with the same type SB (Slow-Blow).

(Note: External 12V DC Supply will not charge the internal rechargeable battery.)

WIRED AND WIRELESS OPERATION

WIRED OPERATION

The front panel has 1 x ¼" input jack for connecting a wired microphone. Doing so will disconnect the wireless microphone audio and allow wired microphone use only.

- Plug wired microphone into ¼" input (MIC IN) with XLR-1/4" cable
- Make any necessary adjustments to Mic level and Tone
- "MIC/WIRELESS" adjusts the input sensitivity.

NOTE: The gain knob can be used to avoid distortion and feedback. It is best to begin with the gain lower and increase as needed.

- "TONE" adjusts the bass and treble. Top center produces flat operation (no EQ).
 - Turning the knob to the right increases the treble and reduces the bass.
 - Turning the knob to the left increases the bass level and reduces the treble.
- If feedback occurs, first try turning down the **Tone control (4)** to MIN. If feedback still is present, try turning down the **Wire/Wireless Mic Volume Control (5)** or repositioning the MPA-400 with respect to the wired or wireless Mic being used.

Note: Microphone elements can easily be destroyed by the buildup of salts and minerals from perspiration and saliva. It is good practice to place a windscreen on the mic at all times.

WIRELESS OPERATION

- Unscrew the battery compartment **cover end cap (14)** and remove, exposing the battery compartment. Insert a fresh 9V alkaline battery, observing polarity. Replace the battery cover.
- Turn on the microphone **power switch (15)** on the handle of the microphone. The battery **indicator LED (16)** will give a single quick flash, indicating usable battery strength. In the case of a dead or low battery, the indicator will either not go on at all or will stay on continuously, indicating a need to replace the battery. To preserve battery life, turn the transmitter off when not in use.
- If there is no audio, check that the **Power Switch (15)** is not on MUTE/Standby - second position.
- Adjust the volume of the MPA-400 to the desired level.
- Extend the **Wireless Mic Receiver Antenna (1)** fully whenever using the wireless microphone to ensure optimum performance and maximum range.

SYSTEM OPERATION AND SETUP

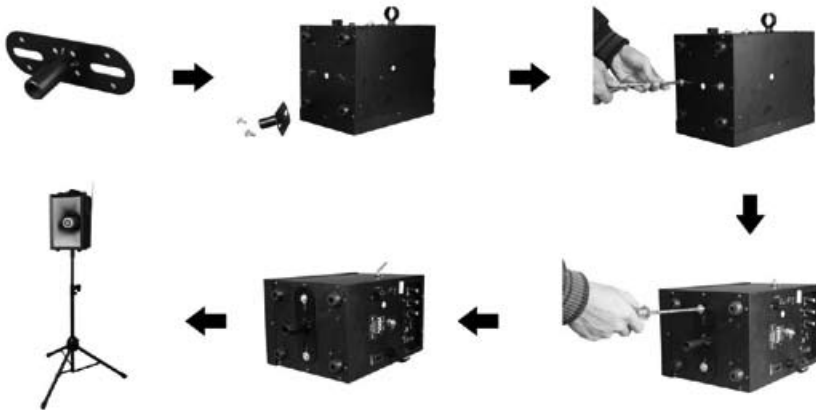
Note: If using more than one wireless microphone on the same frequency, switch only one on at a time. Microphones on the same frequency will interfere with each other. However, one wireless microphone can be used with two or more MPA-400 wireless receivers on the same frequency simultaneously to increase overall sound level.

Observe care in selecting volume, transmitter location and speaker placement so that acoustic feedback (howling and screeching) will be avoided. Mics that are farther from the sound source require more acoustic gain and thus are also more prone to feedback than close-source mics.

Stand Mounting the MPA-400

The MPA-400 can be mounted to the MPA-4S optional aluminum tripod stand for convenient placement in a higher position. Contact your dealer or the Nady service department. (See Page #10)

STAND INSTALLATION (MPA-4S)



WARNING



An equilateral triangle enclosing a lightning flash/arrowhead symbol is intended to alert the user to the presence of non-insulated "dangerous voltage" within the product's enclosure which may be of sufficient magnitude to constitute a risk of electric shock.



An equilateral triangle enclosing an exclamation point is intended to alert the user to the presence of important operating and service instructions in the literature enclosed with this unit.

IMPORTANT SAFETY INSTRUCTIONS

1. Read all instructions before using.
2. Avoid direct contact with the speaker. Care should be taken to avoid damage to speakers.
3. Do not use or store around excessive moisture.
4. At very high volume this product may be capable of producing sound levels that could cause hearing damage. Do not operate at uncomfortable levels for prolonged periods. If hearing loss or ringing in ears is experienced, consult a physician.
5. The MPA-400 should be positioned so that proper ventilation is maintained.
6. Keep away from heat sources such as radiators, heat vents, and other devices (including amplifiers) that produce heat.
7. The MPA-400 should be connected to a power supply described in the operating instructions or as marked. Replace fuse with correct type, size, and rating.
8. The power supply cord should: (1) be undamaged, (2) never share an outlet or extension cord with other devices so that the outlet has exceeded the maximum rating, and (3) never be left plugged into the outlet when not being used for a long period of time.
9. This product should be serviced by qualified service personnel if:
 - The power supply cord or the plug has been damaged.
 - One of the speakers has been damaged.
 - There has been excessive exposure to rain.
 - The MPA-400 does not appear to operate normally or exhibits a change in performance.
 - The unit has been dropped, or the enclosure damaged.
- Do not attempt to service the product beyond what is described in these instructions. All other repairs should be referred to qualified service personnel.
- Clean with damp cloth.
- Use only with the optional MPA-4S stand.
- Units designed with Class-I construction (like the MPA-400) must be connected to an outlet with a grounded connection.

STATEMENT OF RoHS COMPLIANCE

The included electronic parts and components are covered by the European Union Removal of Hazardous Substances directive 2002/95/EC (RoHS). This directive seeks to eliminate the toxic substances released during manufacturing processes to ensure that disposed of materials do not pose health risks. Considered toxic substances are lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) and polybrominated diphenylethers (PBDE). Lead is used together with tin in solder connections to reduce the melting point of solder. Lead-free solder requires higher soldering temperatures which in turn places greater thermal stress on components.

SPECIFICATIONS

Audio Power Output:	40W maximum, 6 Ohms
Internal Battery:	Built-In 12V/3.3A (Rechargeable Battery)
External Power:	12VDC 3A DC Supply
Built-In Charger:	100~240VAC/50~60Hz
AC Power consumption:	40 VA
Dimension:	7" x 9" x 11.5" (178 x 229 x 292mm) and
Weight:	12.4 lbs. (5.63 Kg.)
Input Sensitivity	52dB +/-2dB
Frequency Response:	150-15KHz +/-3dB
T.H.D.:	1% @400Hz
Inputs:	Wireless Mic, Hardwired Mic Inputs
Tone Control Range:	Hi: +/-6dB at 10KHz Low: +/-6dB at 100Hz
Wireless Operating	
Frequency Range:	170-216MHz, FM (3E)
Battery/Hours	9V/ 8Hours
Wireless Operating Distance:	100 ft. typical, up to 200 ft. line of sight

SERVICE

(U.S.) Should your Nady MPA-400 require service, please contact the Nady Service Department via phone at (510) 652-2411 or e-mail at service@nady.com for a Return Authorization (R/A) number and a service quote (if out of warranty). Make sure the (R/A) number is clearly marked on the outside of the package, cashier's check or money order is enclosed (if not prepaid with a credit card), Include a brief description of the problems you are having and ship the unit prepaid to: Nady Systems Inc.

Service Department,
6701 Shellmound Street
Emeryville, CA 94608

(International) For service, please contact the Nady distributor in your country through the dealer from whom you purchased this product.

DO NOT ATTEMPT TO SERVICE THIS UNIT YOURSELF AS IT CAN BE DANGEROUS AND ALSO VOID THE WARRANTY

One Year Limited Warranty

Nady Systems, Inc. warrants to the original consumer purchaser that the unit is free from any defects in material or workmanship for a period of one year from the date of original retail purchase. If any such defect is discovered within the warranty period, Nady Systems, Inc. will repair or replace the unit free of charge, subject to verification of the defect or malfunction upon return to Nady Systems. Please do not return your Nady product to the store where it was purchased as Nady Systems handles your warranty service directly. Communication with our Service Department is the most efficient means of servicing your unit and we are dedicated to keeping you a satisfied customer.

To the extent permitted by law, any applicable implied warranties, including warranties of merchantability and fitness are hereby limited to one year from the date of purchase. Consequential or incidental damages resulting from a breach of any applicable express or implied warranties are hereby excluded. This warranty is in lieu of all other agreements and warranties, general or special, express or implied and no representative or person including a Nady dealer, agent, or employee is authorized to assume for us any other liability in connection with the sale or use of this Nady Systems' product.

Whereas some states do not allow limitations on how long implied warranties last, and do not allow exclusion of incidental or consequential damages, the above limitations and exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which may vary from state to state.

This warranty is subject to the following conditions:

- 1) This system must have been purchased from an authorized Nady dealer and all warranty service must be performed by Nady's service department. Any service not performed by Nady will automatically void this warranty.
- 2) Items not covered: physical damage resulting from improper handling of the unit in transit from the factory by the shipper (Nady Systems is not responsible for such damage and all such claims must be made against the shipping company by the consignee); defects caused by normal wear of the product (expendable parts are typically connectors, cables, potentiometers, switches and similar components); damage or defects caused by abuse, neglect, accident, failure to connect or operate the unit in any way that does not comply with applicable technical or safety regulations, or improper repair, excessive heat or humidity, alteration or unreasonable use of the unit, causing cracks, broken cases/housings or parts; damage caused by leaking batteries; finish or appearance items; items damaged in shipment en route to Nady Systems, Inc. for repair. The warranty is null and void if any Nady serial number has been removed or defaced.

How To Obtain Service:

- 1) If factory service is required, you must contact our Service Department at (510) 652-2411 for a return authorization (RA) number. Make sure the RA number is clearly marked on the outside of your package. (Please note: if an RA number is not included, our shipping department cannot accept your package.)
- 2) Send the unit back to Nady Systems, 6701 Shellmound Street, Emeryville, CA, 94608 freight pre-paid. You must include proof of date and place of purchase (i.e., photocopy of your bill of sale) and a brief description of the unit's problem(s) or Nady cannot be responsible for repair or replacement. Nady Systems, Inc. will not repair, nor be held responsible, for any units returned without proper identification, return address, and RA number clearly marked on the package.
- 3) Per the above, Nady will perform all warranty service and return the unit to you at no charge. Nady Systems will inform the buyer if product sent in does not meet the terms of this warranty and will provide a quote for fixing the unit and/or shipping it back exclusively at the buyer's expense.

Consumer Alert

Most users do not need a license to operate this wireless microphone system. Nevertheless, operating this microphone system without a license is subject to certain restrictions: the system may not cause harmful interference; it must operate at a low power level (not in excess of 50mW); and it has no protection from interference received from any other device. Purchasers should also be aware that the FCC is currently evaluating use of wireless microphone systems, and these rules are subject to change.

For more information, call the FCC at 1-888-CALL-FCC (TTY: 1-888-TELL-FCC) or visit www.fcc.gov/cgb/consumerfacts/wirelessmic_factsheet.html.

Nady wireless systems are type accepted under FCC rules parts 90, 74 and 15.

This device complies with RSS-210 of Industry & Science Canada. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

Consumer Alert

Most users do not need a license to operate this wireless microphone system. Nevertheless, operating this microphone system without a license is subject to certain restrictions: the system may not cause harmful interference; it must operate at a low power level (not in excess of 50mW); and it has no protection from interference received from any other device. Purchasers should also be aware that the FCC is currently evaluating use of wireless microphone systems, and these rules are subject to change.

For more information, call the FCC at 1-888-CALL-FCC (TTY: 1-888-TELL-FCC) or visit www.fcc.gov/cgb/consumerfacts/wirelessmic_factsheet.html.

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NADY SYSTEMS, INC.
Emeryville, CA, USA
www.nady.com